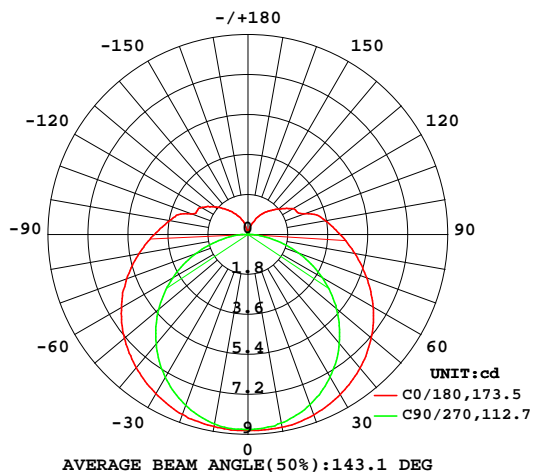


LUMINAIRE PHOTOMETRIC TEST REPORT

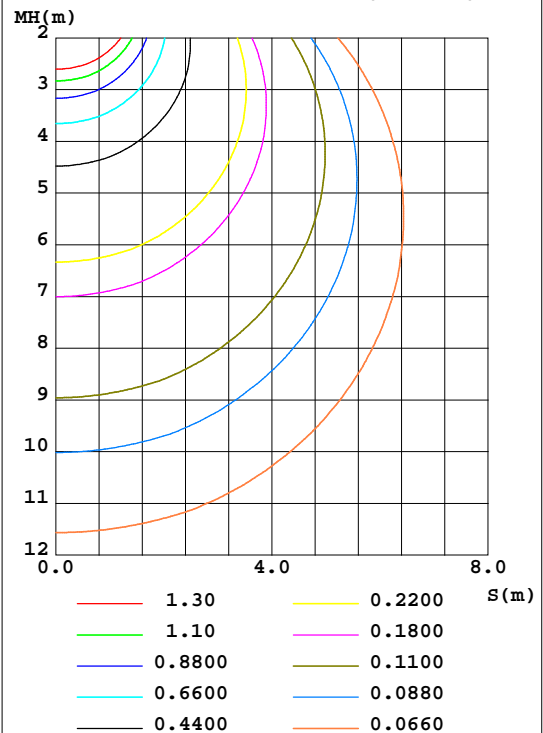
Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 4.90 lm/W
MODEL	NNS1224	I _{max} (cd)	8.832	S/MH(C0/180)	1.41	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	1.26	
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	40.685	h UP,DN(C0-180)	9.1,40.6	
NOMINAL FLUX(lm)	40.6855	CIE CLASS	SEMI-D.	h UP,DN(C180-360)	9.3,41.0	
LAMPS INSIDE	1	h up(%)	18.4	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	24	h down(%)	81.6	CIBSE SHR MAX	1.50	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

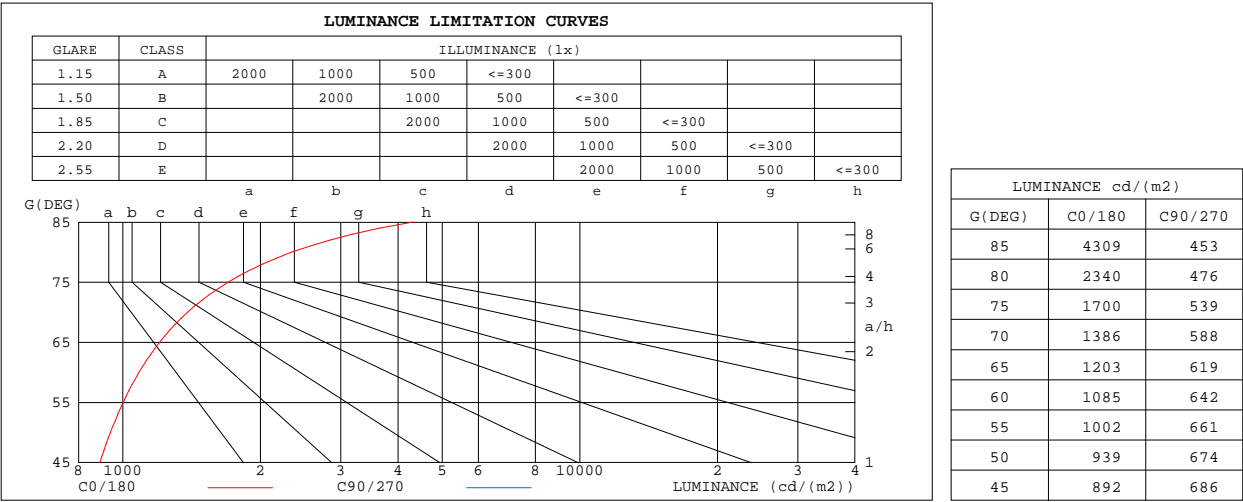
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	8.808	8.620	8.781	8.659					0~ 10	0.8367	0.8367	2.06,2.06
20	8.647	8.161	8.614	8.191					10~ 20	2.429	3.265	8.03,8.03
30	8.318	7.401	8.291	7.437					20~ 30	3.765	7.030	17.3,17.3
40	7.849	6.397	7.828	6.427					30~ 40	4.709	11.74	28.9,28.9
50	7.244	5.200	7.274	5.253					40~ 50	5.176	16.91	41.6,41.6
60	6.510	3.855	6.579	3.918					50~ 60	5.140	22.05	54.2,54.2
70	5.687	2.415	5.812	2.497					60~ 70	4.620	26.67	65.6,65.6
80	4.876	0.9910	4.988	1.111					70~ 80	3.732	30.41	74.7,74.7
90	4.161	0.1538	4.215	0.2706					80~ 90	2.786	33.19	81.6,81.6
100	3.562	0.0324	3.592	0.0193					90~100	2.157	35.35	86.9,86.9
110	2.738	0.0453	2.733	0.0193					100~110	1.739	37.09	91.2,91.2
120	2.344	0.0647	2.438	0.0193					110~120	1.265	38.35	94.3,94.3
130	1.790	0.0837	1.943	0.0259					120~130	0.9772	39.33	96.7,96.7
140	1.372	0.0966	1.454	0.0710					130~140	0.6636	39.99	98.3,98.3
150	0.9404	0.1146	1.029	0.0901					140~150	0.4097	40.40	99.3,99.3
160	0.4839	0.1314	0.6304	0.0901					150~160	0.2056	40.61	99.8,99.8
170	0.1481	0.1336	0.1465	0.0965					160~170	0.0633	40.67	100,100
180	0.1352	0.1352	0.1288	0.1094					170~180	0.0121	40.69	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



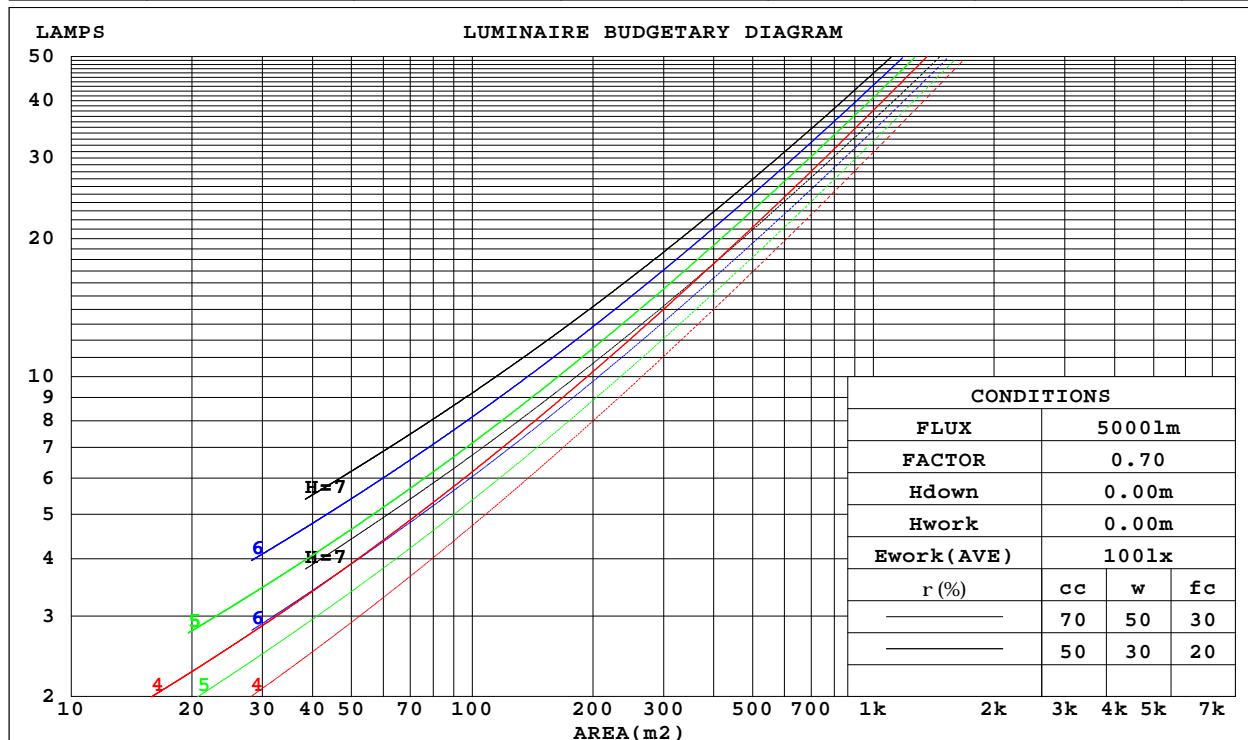
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.15	1.15	1.15	1.10	1.10	1.10	1.01	1.01	1.01	.93	.93	.93	.85	.85	.85	.82
1.0	.96	.91	.86	.92	.87	.83	.84	.80	.77	.77	.74	.71	.70	.68	.66	.62
2.0	.82	.74	.68	.79	.72	.66	.72	.66	.61	.66	.61	.57	.60	.56	.53	.50
3.0	.71	.62	.55	.68	.60	.53	.63	.56	.50	.57	.52	.47	.52	.48	.44	.41
4.0	.63	.53	.46	.60	.51	.45	.55	.48	.42	.51	.44	.40	.46	.41	.37	.34
5.0	.55	.46	.39	.53	.45	.38	.49	.42	.36	.45	.39	.34	.41	.36	.32	.29
6.0	.50	.40	.34	.48	.39	.33	.44	.37	.31	.41	.34	.29	.37	.32	.28	.25
7.0	.45	.36	.29	.43	.35	.29	.40	.33	.27	.37	.30	.26	.34	.29	.24	.22
8.0	.41	.32	.26	.39	.31	.25	.36	.29	.24	.34	.27	.23	.31	.26	.22	.19
9.0	.37	.29	.23	.36	.28	.23	.33	.26	.22	.31	.25	.20	.29	.23	.19	.17
10.0	.34	.26	.21	.33	.25	.20	.31	.24	.19	.29	.23	.18	.27	.21	.18	.16



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-07-01

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.750m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Wall Exitance Coefficients(WEC)												
0.0																
1.0	.377	.215	.068	.365	.208	.066	.341	.195	.062	.318	.184	.059	.298	.173	.056	
2.0	.329	.180	.055	.317	.175	.054	.296	.164	.051	.276	.155	.048	.257	.145	.046	
3.0	.293	.156	.047	.283	.152	.046	.263	.143	.043	.245	.134	.041	.228	.126	.039	
4.0	.265	.138	.040	.255	.134	.039	.237	.126	.038	.221	.119	.036	.205	.112	.034	
5.0	.241	.123	.036	.232	.119	.035	.216	.113	.033	.201	.106	.032	.187	.100	.030	
6.0	.221	.111	.032	.213	.108	.031	.198	.102	.030	.185	.096	.028	.172	.090	.027	
7.0	.204	.101	.029	.197	.098	.028	.183	.093	.027	.171	.087	.025	.159	.082	.024	
8.0	.189	.092	.026	.183	.090	.025	.170	.085	.024	.159	.080	.023	.148	.076	.022	
9.0	.176	.085	.024	.170	.083	.023	.159	.079	.022	.148	.074	.021	.138	.070	.020	
10.0	.165	.079	.022	.160	.077	.022	.149	.073	.021	.139	.069	.020	.130	.065	.019	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.331	.331	.331	.283	.283	.283	.193	.193	.193	.111	.111	.111	.035	.035	.035	
1.0	.326	.297	.271	.279	.255	.233	.191	.175	.161	.110	.101	.094	.035	.033	.030	
2.0	.320	.274	.236	.274	.236	.204	.188	.163	.142	.108	.095	.083	.035	.031	.027	
3.0	.312	.258	.214	.268	.222	.186	.184	.154	.130	.106	.090	.077	.034	.029	.025	
4.0	.304	.245	.200	.261	.212	.174	.180	.148	.122	.104	.086	.072	.033	.028	.024	
5.0	.297	.235	.190	.255	.204	.165	.176	.142	.117	.102	.084	.069	.033	.027	.023	
6.0	.289	.227	.183	.249	.197	.159	.172	.138	.113	.100	.081	.067	.032	.027	.022	
7.0	.282	.221	.178	.243	.191	.155	.168	.134	.110	.098	.079	.065	.032	.026	.022	
8.0	.276	.215	.174	.237	.187	.151	.164	.131	.107	.096	.077	.064	.031	.025	.021	
9.0	.270	.210	.171	.232	.183	.149	.161	.128	.106	.094	.076	.063	.030	.025	.021	
10.0	.264	.206	.168	.227	.179	.147	.158	.126	.104	.092	.075	.062	.030	.024	.021	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm										
NAME: NNS1224					TYPE:			WEIGHT:		
SPEC.:NNS1224-0B24CSS050CC0100					DIM.: 1000*12*24mm			SERIAL No.:		
MFR.: Colors					SUR.:1000*12			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	23.1	24.5	23.7	25.0	25.6	21.3	22.6	21.8	23.2	23.7
3H	25.8	27.0	26.3	27.6	28.2	22.8	24.1	23.4	24.6	25.2
4H	27.3	28.4	27.8	29.0	29.6	23.5	24.7	24.0	25.2	25.8
6H	28.9	30.0	29.5	30.6	31.3	23.9	25.0	24.5	25.6	26.3
8H	29.8	30.9	30.4	31.5	32.2	24.0	25.1	24.6	25.7	26.4
12H	30.9	32.0	31.5	32.6	33.2	24.1	25.2	24.7	25.8	26.5
4H 2H	23.7	24.9	24.2	25.4	26.1	22.3	23.5	22.9	24.1	24.7
3H	26.5	27.5	27.1	28.1	28.8	24.1	25.2	24.7	25.8	26.4
4H	28.1	29.1	28.8	29.7	30.4	24.9	25.9	25.5	26.5	27.2
6H	30.0	30.8	30.6	31.5	32.2	25.6	26.4	26.2	27.1	27.8
8H	31.0	31.8	31.7	32.5	33.3	25.8	26.6	26.5	27.3	28.0
12H	32.3	33.0	32.9	33.7	34.5	26.0	26.7	26.7	27.4	28.2
8H 4H	28.4	29.2	29.1	29.9	30.6	25.8	26.6	26.5	27.2	28.0
6H	30.5	31.2	31.2	31.9	32.7	26.8	27.4	27.5	28.1	28.9
8H	31.7	32.4	32.5	33.1	33.9	27.2	27.8	27.9	28.5	29.3
12H	33.2	33.8	34.0	34.5	35.3	27.6	28.1	28.3	28.8	29.7
12H 4H	28.4	29.1	29.1	29.8	30.6	26.1	26.8	26.7	27.5	28.3
6H	30.6	31.2	31.3	31.9	32.7	27.2	27.8	27.9	28.5	29.4
8H	31.9	32.5	32.6	33.2	34.0	27.8	28.4	28.6	29.1	29.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5				

CIE Pub.117, 40.69 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -11.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

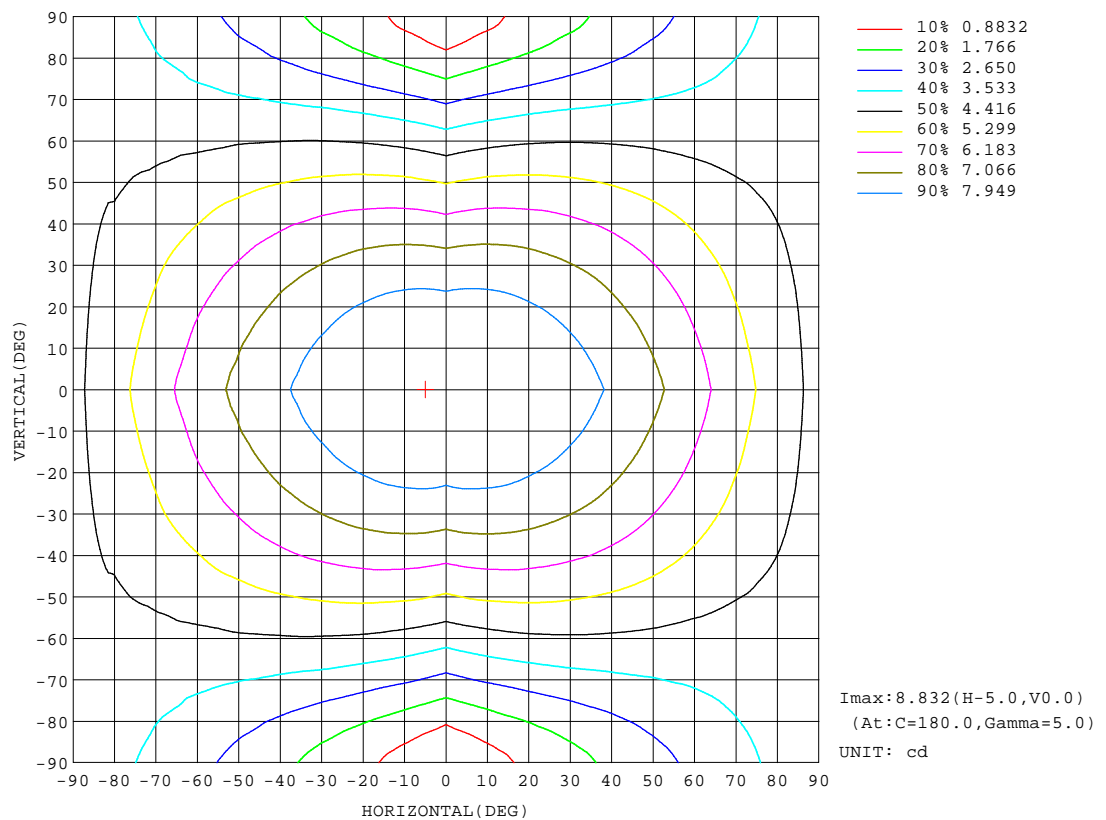
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	48	35	28	47	35	28	45	34	28	21
0.80	57	44	36	55	43	36	53	42	35	27
1.00	65	52	44	63	51	43	59	51	42	33
1.25	72	59	51	69	58	50	65	55	48	39
1.50	77	65	56	74	63	55	69	60	53	43
2.00	84	73	65	81	71	64	75	67	61	49
2.50	89	79	71	85	76	69	79	72	66	53
3.00	92	83	76	89	81	74	82	75	70	56
4.00	97	89	83	93	86	80	86	80	76	61
5.00	100	93	88	96	90	85	88	84	79	64
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-07-01

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.750m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



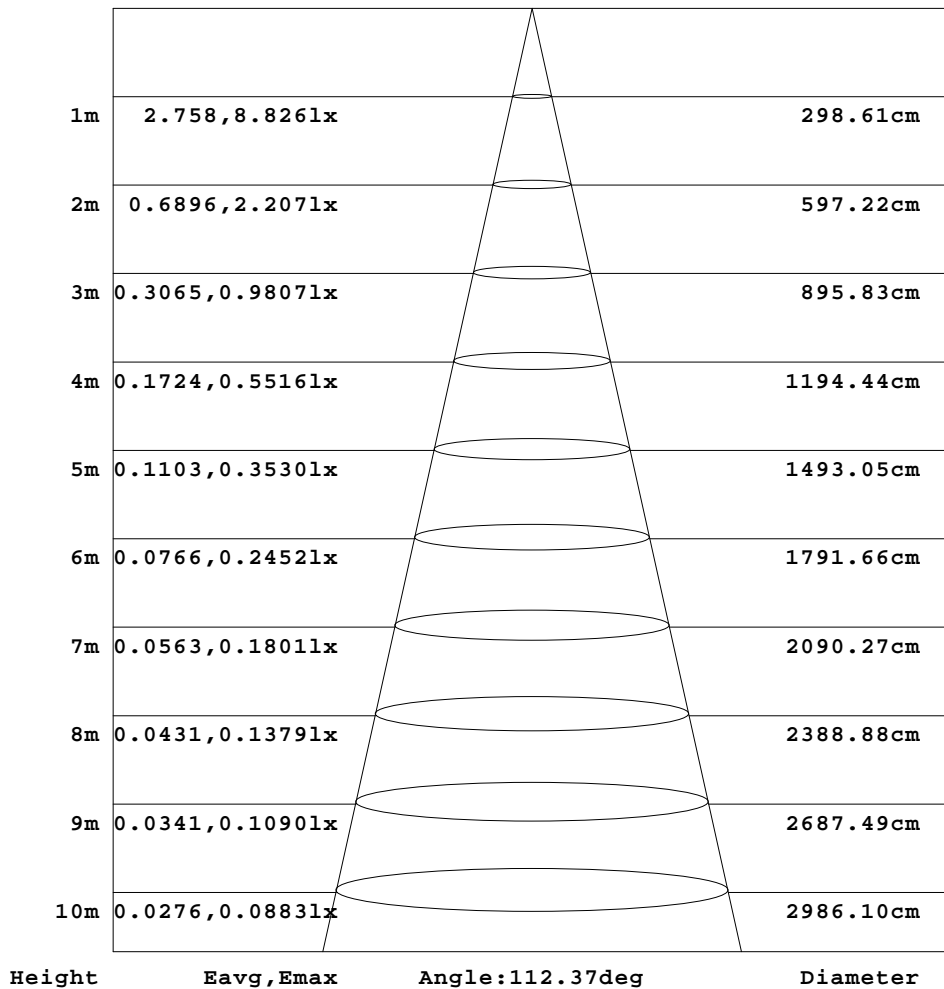
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Flux out:20.55 lm



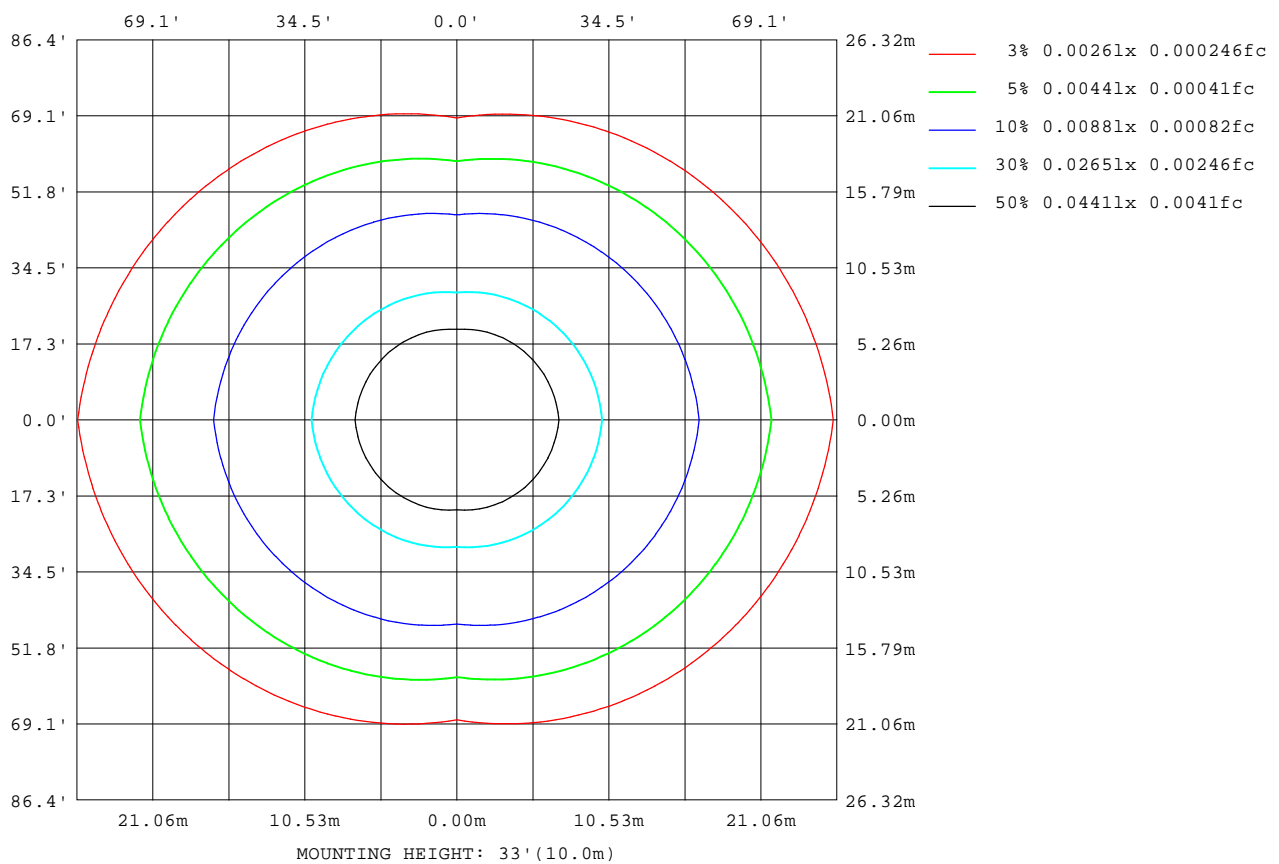
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: COLORS
 Test Date: 2019-07-01

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 10.750m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

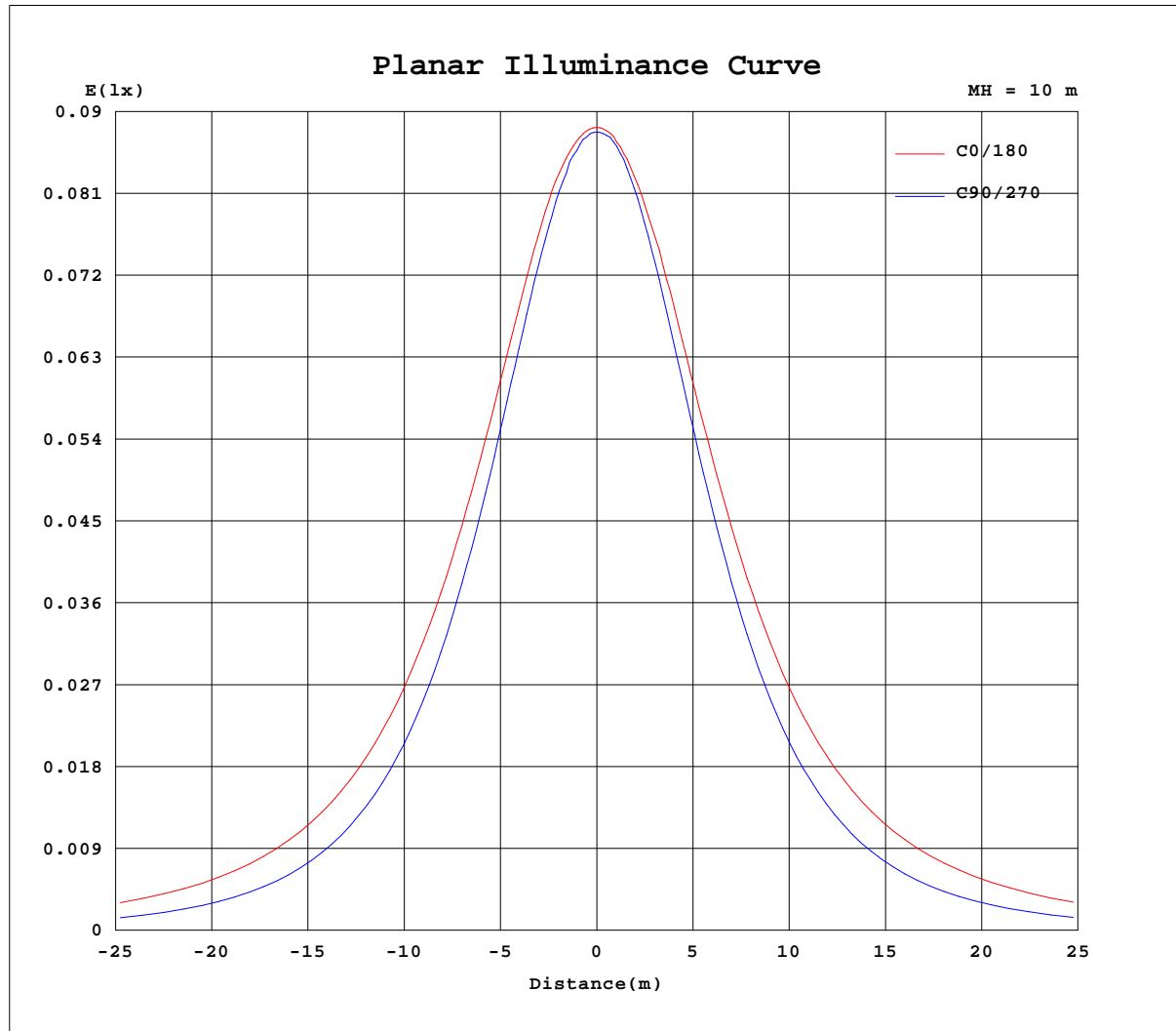
AvgL	cd/m2
L_0~180(65)av	1216
L_0~180(75)av	1718
L_0~180(85)av	4352
L_90~270(65)av	626
L_90~270(75)av	552
L_90~270(85)av	513
L_45(65)av	848
L_45(75)av	991
L_45(85)av	1955

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: COLORS
Test Date: 2019-07-01

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.750m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.3490A P:8.300W PF:1.000 Freq:0Hz Lamp Flux:40.6855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0B24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270															
0	8.83	8.77	8.83	8.77															
5	8.82	8.74	8.83	8.77															
10	8.81	8.62	8.78	8.66															
15	8.76	8.42	8.71	8.47															
20	8.65	8.16	8.61	8.19															
25	8.50	7.81	8.48	7.85															
30	8.32	7.40	8.29	7.44															
35	8.10	6.95	8.08	6.96															
40	7.85	6.40	7.83	6.43															
45	7.57	5.82	7.56	5.87															
50	7.24	5.20	7.27	5.25															
55	6.90	4.55	6.95	4.60															
60	6.51	3.85	6.58	3.92															
65	6.10	3.14	6.23	3.21															
70	5.69	2.41	5.81	2.50															
75	5.28	1.67	5.39	1.76															
80	4.88	0.99	4.99	1.11															
85	4.51	0.47	4.60	0.60															
90	4.16	0.15	4.22	0.27															
95	3.86	0.03	3.88	0.03															
100	3.56	0.03	3.59	0.02															
105	3.28	0.05	3.34	0.02															
110	2.74	0.05	2.73	0.02															
115	2.45	0.06	2.54	0.02															
120	2.34	0.06	2.44	0.02															
125	2.05	0.07	2.21	0.02															
130	1.79	0.08	1.94	0.03															
135	1.57	0.09	1.69	0.05															
140	1.37	0.10	1.45	0.07															
145	1.16	0.11	1.25	0.09															
150	0.94	0.11	1.03	0.09															
155	0.68	0.13	0.84	0.09															
160	0.48	0.13	0.63	0.09															
165	0.22	0.13	0.22	0.09															
170	0.15	0.13	0.15	0.10															
175	0.14	0.13	0.13	0.10															
180	0.14	0.14	0.13	0.11															

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